

REMARKS

Claims 8-13 were withdrawn from consideration in the election made on April 14, 2003 in response to a restriction requirement. The election was made with traverse, and the restriction requirement is further traversed in view of the newly added combination claim 15. Originally filed claims 1 and 8 are to different species of new generic claim 15. A restriction requirement is unsupported because the claims must be mutually exclusive for the claims to be restricted to different species (MPEP 806.04(f)). Because claims 1 and 8 do not recite mutually exclusive characteristics the restriction requirement should be withdrawn.

New claims 15-18 are added to claim the invention in alternative language.

Claims 1, 2, and 14 stand rejected under 35 USC §103(a) as being unpatentable over US patent number 5,999,990 to Sharrit et al. ("Sharrit"). The rejection is respectfully traversed because *prima facie* obviousness is not established. The rejection fails to show that all the limitations are shown or suggested by Sharrit, fails to provide evidence in support of a motivation to modify Sharrit, and fails to show that the teachings of Sharrit could be modified with a reasonable likelihood of success.

The rejection fails to show a teaching or suggestion of all the limitations of claims 1 and 14. For example, the rejection alleges that Sharrit teaches the limitations that relate to monitoring activity levels of the functions. However, the cited sections of Sharrit merely teach monitoring system requirements and determining required processing. It is respectfully submitted that Sharrit's monitoring of system requirements neither teaches nor suggests monitoring activity levels of functions. Specifically, the example system requirements explained by Sharrit relate to work that needs to be done, not to the level of work currently being performed. For example,

level of work currently being performed. For example, Sharrit describes detecting that a signal having a particular format is present and certain processing functions need to be performed (col. 6, ll. 62-67). In another example, Sharrit explains that monitoring system requirements may involve receiving user commands and determining the functions to be performed (col. 7, ll. 5-8). In yet another example, Sharrit indicates that the monitoring of system requirements may involve determining that a demodulation function needs to be performed (col. 7, ll. 20-25). These examples clearly neither teach nor suggest monitoring activity levels.

The rejection acknowledges that Sharrit does not teach the limitations that relate to detecting when the activity levels of a first function decrease. The rejection alleges that Sharrit monitors "resource consumption dynamically, which implies both resource decrease and demand as well." The rejection cites Sharrit's col. 7, ll. 27-33 as supporting this. However, the cited section does not appear to teach any monitoring of resource consumption, and as explained in the preceding paragraph, Sharrit monitors system requirements, not activity levels. Furthermore, the examples Sharrit cites that explain monitoring of system requirements do not imply detecting decreases in activity levels. That is, detecting a need for a resource does not necessarily imply that the activity level of another function is decreased.

The rejection further alleges that "it is obvious ... to recognize that the reconfiguration due to the decreasing in the resource consumption for which the system reallocates the available resource to other operative function(s), being part of dynamic modifying resource allocation." As far as this alleged motivation for modifying Sharrit is understood, it is improper because it is conclusory. Addressing the "rigorous ... requirement for a showing of the teaching or motivation to combine prior art references," the Court of

Appeals for the Federal Circuit stated in *In re Dembiczak*, 175 F.3d 994, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999):

We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, (citations omitted), although "the suggestion more often comes from the teachings of the pertinent references," *Rouffet*, 149 F.3d at 1355, 47 USPQ2d at 1456. The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. See, e.g., *C.R. Bard*, 157 F.3d at 1352, 48 USPQ2d at 1232. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." (citation omitted)

The alleged motivation is merely a broad conclusory statement of modifying resource allocation due to decreasing resource consumption, and no evidence has been provided that suggests the modification. The alleged motivation is essentially based on hindsight and therefore insufficient to support *prima facie* obviousness.

The rejection of claim 2 alleges that various sections of Sharrit show the limitations that relate to periodically sampling the activity levels of the functions. However, the cited sections do not show these limitations. For example, Sharrit's col. 9, ll. 54-58 indicates that the priority values assigned to various processing tasks may be dynamically changed over time. This section does not specifically indicate how Sharrit determines that a priority level should be changed, and the rejection provides no explanation to relate Sharrit's teaching to the specific claim limitations. Therefore, the rejection fails to show that Sharrit teaches or suggest the limitations of claim 2.

For at least the reasons set forth above, *prima facie* obviousness is not established for claims 1, 2 and 14. Therefore, Applicant respectfully requests allowance of claims 1, 2 and 14. Furthermore, claims 3-7 depend either directly or indirectly from claim 1, and include all of the

limitations of claim 1. Therefore, for at least the reasons set forth above with respect to claim 1, Applicant believes claims 3-7 are also allowable.

Claims 3, 5, and 6 stand rejected under 35 USC §103(a) as being unpatentable over Sharrit in view of US patent application number 2003/0046396 A1 to Richter et al. ("Richter"). The rejection is respectfully traversed because *prima facie* obviousness is not established. The rejection fails to show that all the limitations are shown or suggested by the combination, fails to provide evidence in support of a motivation to modify Sharrit with Richter, and fails to show that Sharrit and Richter could be combined with a reasonable likelihood of success.

The rejection alleges that various paragraphs of Richter teach the limitations of claim 3 that relate to determining a decrease in activity level after sampling the activity levels of the functions a selected number of times. However, the cited paragraphs suggest neither monitoring an activity level nor sampling a selected number of times to detect a decrease. For example, Richter's paragraph 0391 states:

[0391] In the practice of the disclosed systems and methods, a resource utilization table module 3030 may employ a table that is constructed and maintained, for example, as a full table similar to Table 1 of Example 4. Such a table may be constructed of individual table entries that are read into and maintained, for example, in RAM memory of system monitor 240 or system management processing engine 1060. However, implementations other than a full resource utilization table may be employed to store and maintain pre-defined resource utilization values. For example, a linear approximation relationship such as illustrated and described in relation to FIG. 14 of Example 4 may be employed as a resource utilization table to reduce the amount of memory and processing associated with a full resource utilization table (e.g., for table storage and value look up processing). Such a linear approximation may be employed to represent resource utilization value per stream as a function of stream rate as a linear function.

This paragraph has no apparent suggestion of the claim 3 limitations. The other paragraphs appear to be similarly irrelevant. Thus, an explanation of the relevance is requested if the rejection is maintained. Otherwise, the rejection should be withdrawn.

The rejection further alleges that "it would have been obvious ... to incorporate this feature to Sharrit et al.'s invention so that the resource usage level can be measured for optimization purposes." This rejection is improper because it is conclusory and based on hindsight. For example, the rejection provides no evidence that Sharrit's system is in need of optimization. Furthermore, no evidence is provided to explain what is meant by "optimization." The alleged motivation is further deficient because Richter's system is directed to managing resource utilization in information environments (title), and Sharrit's communicator having reconfigurable resources operates as a transceiver (col. 2, ll. 8-10). Transplanting Richter's infrastructure for managing resource utilization into Sharrit's system would seemingly make Sharrit's system undesirably large and expensive.

The rejections of claims 5 and 6 fail to establish *prima facie* obviousness for reasons similar to those explained for claim 3. The cited sections bear no apparent relation to the claim limitations, the alleged motivations for modifying Sharrit are conclusory, and the resulting modifications are unlikely to be successful. For example, in regards to claim 5, the cited section of Richter (paragraph 0463) discusses treating messages at some priority level, which bears no apparent relation to the limitations that relate to reconfiguring PLD resources configured for a first function only if the activity level of a second function is increasing. The cited sections are even less relevant to the further limitations relating to adding resources to a reserve of PLD resources if none of the functions having increasing activity levels. An explanation of the relevance is requested if the rejection is maintained.

The rejection fails to show that all the limitations are shown or suggested by the combination, fails to provide

evidence in support of a motivation to modify Sharrit with Richter, and fails to show that Sharrit and Richter could be combined with a reasonable likelihood of success. Therefore, *prima facie* obviousness is not established.

Claims 4 and 7 stand rejected under 35 USC §103(a) as being unpatentable over Sharrit in view of Richter and further in view of US patent application number 2002/0091722A1 to Gupta et al. ("Gupta"). The rejection is respectfully traversed because *prima facie* obviousness is not established. The rejection fails to show that all the limitations are shown or suggested by the combination, fails to provide evidence in support of a motivation to modify Sharrit with Richter and with Gupta, and fails to show that Sharrit, Richter, Gupta could be combined with a reasonable likelihood of success.

The rejection alleges that Gupta teaches the limitations relating to proportionally allocating PLD resources according to a ratio of increasing activity levels of the functions. However the cited paragraph [0156] of Gupta teaches that buffer space may be allocated to a storage device in proportion to the value of the workload weight for that device. This clearly does not teach allocating PLD resources, much less doing so according to a ratio of increasing activity levels of the functions. The teaching that buffer space may be allocated proportionally to devices suggests nothing of PLD applications nor allocating in proportion to increasing activity levels, and the rejection provides no evidence to suggest modifying Gupta for allocation and configuration of PLD resources.

The alleged motivation for combining Gupta with Sharrit and Richter is conclusory and therefore improper. The rejection alleges that "it would have been obvious ... to incorporate this feature to Sharrit et al. and Richter et al.'s invention to optimize buffer space utilization

(paragraph 0155)." No evidence is provided to suggest that Sharrit needs buffer space optimization. Furthermore, no explanation given as to what is intended by "optimize." Therefore the alleged motivation is improper and does not support *prima facie* obviousness.

The teachings of Gutpa are ill-suited for combining with the teachings of Sharrit for the same reasons set forth above in response to the asserted Sharrit-Richter combination. Therefore, the rejection fails to establish a reasonable likelihood of successfully combining Gutpa with Sharrit and Richter.

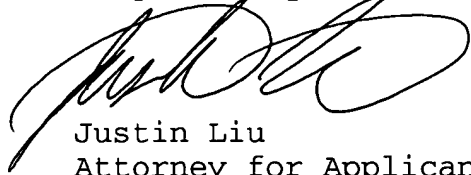
The rejection of claim 4 is deficient for at least the reasons set forth above.

The rejection fails to show that all the limitations are shown or suggested by the Sharrit-Gutpa-Gutpa combination, fails to provide evidence in support of a motivation to modify Sharrit with Richter and with Gutpa, and fails to show that Sharrit and Richter and Gutpa could be combined with a reasonable likelihood of success. Therefore, *prima facie* obviousness is not established.

CONCLUSION

Reconsideration and a notice of allowance are respectfully requested in view of the Remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

Respectfully submitted,

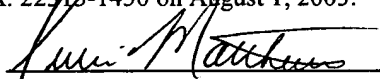


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Julie Matthews

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